RAW SEQUENCE LISTING   DATE: 12/07/2001
PATENT APPLICATION: US/09/987,357   TIME: 12:55:54

Input Set : N:\Crf3\RULE60\09987357.txt
Output Set: N:\CRF3\12072001\I987357.raw

```
 3 <110> APPLICANT: Carmichael, David F
 4         Anderson, David C
 5         Stricklin, George P
 6         Welgus, Howard G
 8 <120> TITLE OF INVENTION: Human Collagenase Inhibitor, Recombinant Vector System
 9         For Using Same And Recombinant-DNA Method For
10         Manufacture Of Same
12 <130> FILE REFERENCE: Serial No. 09/452,817
14 <140> CURRENT APPLICATION NUMBER: 09/987,357
15 <141> CURRENT FILING DATE: 2001-11-14
17 <150> PRIOR APPLICATION NUMBER: 09/452,817
18 <151> PRIOR FILING DATE: 1999-12-01
20 <150> PRIOR APPLICATION NUMBER: 08/474,553
21 <151> PRIOR FILING DATE: 1995-06-07
23 <150> PRIOR APPLICATION NUMBER: 08/050,739
24 <151> PRIOR FILING DATE: 1993-04-21
26 <150> PRIOR APPLICATION NUMBER: 07/853,018
27 <151> PRIOR FILING DATE: 1992-03-18
29 <150> PRIOR APPLICATION NUMBER: 07/517,475
30 <151> PRIOR FILING DATE: 1990-05-01
32 <150> PRIOR APPLICATION NUMBER: 07/320,923
33 <151> PRIOR FILING DATE: 1989-03-08
35 <150> PRIOR APPLICATION NUMBER: 06/784,319
36 <151> PRIOR FILING DATE: 1985-10-04
38 <150> PRIOR APPLICATION NUMBER: 06/699,181
39 <151> PRIOR FILING DATE: 1985-02-05
41 <160> NUMBER OF SEQ ID NOS: 20
43 <170> SOFTWARE: PatentIn Ver. 2.0
45 <210> SEQ ID NO: 1
46 <211> LENGTH: 184
47 <212> TYPE: PRT
48 <213> ORGANISM: Homo sapiens
50 <400> SEQUENCE: 1
51 Cys Thr Cys Val Pro Pro His Pro Gln Thr Ala Phe Cys Asn Ser Asp
52   1           5                  10                  15
54 Leu Val Ile Arg Ala Lys Phe Val Gly Thr Pro Glu Val Asn Gln Thr
55             20                  25                  30
57 Thr Leu Tyr Gln Arg Tyr Glu Ile Lys Met Thr Lys Met Tyr Lys Gly
58         35                  40                  45
60 Phe Gln Ala Leu Gly Asp Ala Ala Asp Ile Arg Phe Val Tyr Thr Pro
61       50                  55                  60
63 Ala Met Glu Ser Val Cys Gly Tyr Phe His Arg Ser His Asn Arg Ser
64   65                  70                  75                  80
66 Glu Glu Phe Leu Ile Ala Gly Lys Leu Gln Asp Gly Leu Leu His Ile
67                 85                  90                  95
69 Thr Thr Cys Ser Phe Val Ala Pro Trp Asn Ser Leu Ser Leu Ala Gln
70             100                 105                 110
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72 Arg Arg Gly Phe Thr Lys Thr Tyr Thr Val Gly Cys Glu Glu Cys Thr
73          115             120             125
75 Val Phe Pro Cys Leu Ser Ile Pro Cys Lys Leu Gln Ser Gly Thr His
76     130             135             140
78 Cys Leu Trp Thr Asp Gln Leu Leu Gln Gly Ser Glu Lys Gly Phe Gln
79 145             150             155             160
81 Ser Arg His Leu Ala Cys Leu Pro Arg Glu Pro Gly Leu Cys Thr Trp
82          165             170             175
84 Gln Ser Leu Arg Ser Gln Ile Ala
85          180
88 <210> SEQ ID NO: 2
89 <211> LENGTH: 106
90 <212> TYPE: PRT
91 <213> ORGANISM: Homo sapiens
93 <400> SEQUENCE: 2
94 Cys Thr Cys Val Pro Pro His Pro Gln Thr Ala Phe Cys Asn Ser Asp
95   1           5               10              15
97 Leu Val Ile Arg Ala Lys Phe Val Gly Thr Pro Glu Val Asn Gln Thr
98          20              25              30
100 Thr Leu Tyr Gln Arg Tyr Glu Ile Lys Met Thr Lys Met Tyr Lys Gly
101          35              40              45
103 Phe Gln Ala Leu Gly Asp Ala Ala Asp Ile Arg Phe Val Tyr Thr Pro
104  ,  50              55              60
106 Ala Met Glu Ser Val Cys Gly Tyr Phe His Arg Ser His Asn Arg Ser
107 65              70              75              80
109 Glu Glu Phe Leu Ile Ala Gly Lys Leu Gln Asp Gly Leu Leu His Ile
110              85              90              95
112 Thr Thr Cys Ser Phe Val Ala Pro Trp Asn
113          100             105
116 <210> SEQ ID NO: 3
117 <211> LENGTH: 38
118 <212> TYPE: PRT
119 <213> ORGANISM: Homo sapiens
121 <400> SEQUENCE: 3
122 Gly His Arg Arg Arg Ser Ser Ala Gln Arg Asp Thr Arg Glu Pro Thr
123  1           5               10              15
125 Met Ala Pro Phe Asp Pro Trp Leu Leu His Pro Val Val Ala Val Ala
126          20              25              30
128 Asp Ser Pro Ser Arg Ala
129          35
132 <210> SEQ ID NO: 4
133 <211> LENGTH: 22
134 <212> TYPE: PRT
135 <213> ORGANISM: Homo sapiens
137 <400> SEQUENCE: 4
138 Met Ala Leu Phe Asp Pro Trp Leu Leu His Pro Val Val Ala Val Ala
139  1           5               10              15
141 Asp Ser Pro Ser Arg Ala
142          20
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145  <210> SEQ ID NO: 5
146  <211> LENGTH: 703
147  <212> TYPE: DNA
148  <213> ORGANISM: Homo sapiens
150  <400> SEQUENCE: 5
151  gttgttgctg tggctgatag ccccagcagg gcctgcacct gtgtcccacc ccacccacag   60
152  acggccttct gcaattccga cctcgtcatc agggccaagt tcgtggggac accagaagtc  120
153  aaccagacca ccttatacca gcgttatgag atcaagatga ccaagatgta taaagggttc  180
154  caagccttag gggatgccgc tgacatccgg ttcgtctaca cccccgccat ggagagtgtc  240
155  tgcggatact ccacaggtc ccacaaccgc agcgaggagt ttctcattgc tggaaaactg  300
156  caggatggac tcttgcacat cactacctgc agttttgtgg ctccctggaa cagcctgagc  360
157  ttagctcagc gccggggctt caccaagacc tacactgttg ctgtgagga atgcacagtg  420
158  tttccctgtt tatccatccc ctgcaaactg cagagtggca ctcattgctt gtggacggac  480
159  cagctcctcc aaggctctga aaagggcttc cagtcccgtc accttgcctg cctgcctcgg  540
160  gagccagggc tgtgcacctg gcagtccctg cggtcccaga tagcctgaat cctgcccgga  600
161  gtggaagctg aagcctgcac agtgtccacc ctgttcccac tcccatcttt cttccggaca  660
162 .atgaaataaa gagttaccac ccagcaaaaa aaaaaaggaa ttc                    703
164  <210> SEQ ID NO: 6
165  <211> LENGTH: 432
166  <212> TYPE: DNA
167  <213> ORGANISM: Homo sapiens
169  <400> SEQUENCE: 6
170  ggccatcgcc gcagatccag cgcccagaga gacaccagag aacccaccat ggcccccttt   60
171  gacccctggc ttctgcatcc tgttgttgct gtggctgata gccccagcag ggcctgcacc  120
172  tgtgtcccac cccacccaca gacggccttc tgcaattccg acctcgtcat cagggccaag  180
173  ttcgtgggga caccagaagt caaccagacc accttatacc agcgttatga gatcaagatg  240
174  accaagatgt ataaagggtt ccaagcctta ggggatgccg ctgacatccg gttcgtctac  300
175  accccgcca tggagagtgt ctgcggatac ttccacaggt cccacaaccg cagcgaggag  360
176  tttctcattg ctggaaaact gcaggatgga ctcttgcaca tcactacctg cagttttgtg  420
177  gctccctgga ac                                                       432
179  <210> SEQ ID NO: 7
180  <211> LENGTH: 780
181  <212> TYPE: DNA
182  <213> ORGANISM: Homo sapiens
184  <400> SEQUENCE: 7
185  ggccatcgcc gcagatccag cgcccagaga gacaccagag aacccaccat ggcccccttt   60
186  gacccctggc ttctgcatcc tgttgttgct gtggctgata gccccagcag ggcctgcacc  120
187  tgtgtcccac cccacccaca gacggccttc tgcaattccg acctcgtcat cagggccaag  180
188  ttcgtgggga caccagaagt caaccagacc accttatacc agcgttatga gatcaagatg  240
189  accaagatgt ataaagggtt ccaagcctta ggggatgccg ctgacatccg gttcgtctac  300
190  accccgcca tggagagtgt ctgcggatac ttccacaggt cccacaaccg cagcgaggag  360
191  tttctcattg ctggaaaact gcaggatgga ctcttgcaca tcactacctg cagttttgtg  420
192  gctccctgga acagcctgag cttagctcag cgccggggct tcaccaagac ctacactgtt  480
193  ggctgtgagg aatgcacagt gtttccctgt ttatccatcc cctgcaaact gcagagtggc  540
194  actcattgct tgtggacgga ccagctcctc caaggctctg aaaagggctt ccagtcccgt  600
195  caccttgcct gcctgcctcg ggagccaggg ctgtgcacct ggcagtccct gcggtcccag  660
196  atagcctgaa tcctgcccgg agtggaagct gaagcctgca cagtgtccac cctgttccca  720
197  ctcccatctt tcttccggac aatgaaataa agagttacca cccagcaaaa aaaaaaagga  780
199  <210> SEQ ID NO: 8
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200 <211> LENGTH: 55
201 <212> TYPE: DNA
202 <213> ORGANISM: Artificial Sequence
204 <220> FEATURE:
205 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
206       5'-end of human TIMP-1 using preferred yeats
207       codons; + strand
209 <400> SEQUENCE: 8
210 gatccgtgca cttgtgttcc accacaccca caaactgctt tctgtaactc tgacc      55
212 <210> SEQ ID NO: 9
213 <211> LENGTH: 52
214 <212> TYPE: DNA
215 <213> ORGANISM: Artificial Sequence
217 <220> FEATURE:
218 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
219       5'-end of human TIMP-1 using preferred yeast
220       codons; - strand
222 <400> SEQUENCE: 9
223 aggtcagagt tacagaaagc agtttgtggg tgtggtggaa cacaagtgca cg      52
225 <210> SEQ ID NO: 10
226 <211> LENGTH: 75
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Description of Artificial Sequence: linker
233 <400> SEQUENCE: 10
234 gatccgcgat cggagtgtaa gaaatgtgca cttgcgttcc gccgcatccg cagactgctt 60
235 tctgcaactc tgacc                                                  75
237 <210> SEQ ID NO: 11
238 <211> LENGTH: 72
239 <212> TYPE: DNA
240 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Description of Artificial Sequence: linker
245 <400> SEQUENCE: 11
246 aggtcagagt tgcagaaagc agtctgcgga tgcggcggaa cgcaagtgca catttcttac 60
247 actccgatcg cg                                                     72
249 <210> SEQ ID NO: 12
250 <211> LENGTH: 35
251 <212> TYPE: DNA
252 <213> ORGANISM: Artificial Sequence
254 <220> FEATURE:
255 <223> OTHER INFORMATION: Description of Artificial Sequence:
256       oligonucleotide
258 <400> SEQUENCE: 12
259 gatccgcgat cggagtgtaa gaaatgtgca cttgc                            35
261 <210> SEQ ID NO: 13
262 <211> LENGTH: 36
263 <212> TYPE: DNA
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        Input Set : N:\Crf3\RULE60\09987357.txt
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264 <213> ORGANISM: Artificial Sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: Description of Artificial Sequence:
268       oligonucleotide
270 <400> SEQUENCE: 13 .
271 ggaacgcaag tgcacatttc ttacactccg atcgcg                        36
273 <210> SEQ ID NO: 14
274 <211> LENGTH: 40
275 <212> TYPE: DNA
276 <213> ORGANISM: Artificial Sequence
278 <220> FEATURE:
279 <223> OTHER INFORMATION: Description of Artificial Sequence:
280       oligonucleotide
282 <400> SEQUENCE: 14
283 gttccgccgc atccgcagac tgctttctgc aactctgacc                    40
285 <210> SEQ ID NO: 15
286 <211> LENGTH: 36
287 <212> TYPE: DNA
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: Description of Artificial Sequence:
292       oligonucleotide
294 <400> SEQUENCE: 15
295 aggtcagagt tgcagaaagc agtctgcgga tgcggc                        36
297 <210> SEQ ID NO: 16
298 <211> LENGTH: 9
299 <212> TYPE: DNA
300 <213> ORGANISM: Artificial Sequence
302 <220> FEATURE:
303 <223> OTHER INFORMATION: Description of Artificial Sequence: linker
305 <400> SEQUENCE: 16
306 aattggcag                                                       9
308 <210> SEQ ID NO: 17
309 <211> LENGTH: 9
310 <212> TYPE: DNA
311 <213> ORGANISM: Artificial Sequence
313 <220> FEATURE:
314 <223> OTHER INFORMATION: Description of Artificial Sequence: linker
316 <400> SEQUENCE: 17
317 tcgactgcc                                                       9
319 <210> SEQ ID NO: 18
320 <211> LENGTH: 138
321 <212> TYPE: DNA
322 <213> ORGANISM: Artificial Sequence
324 <220> FEATURE:
325 <223> OTHER INFORMATION: Description of Artificial Sequence: artificial
326       OmpA leader sequence
328 <400> SEQUENCE: 18
329 gaattcgata tctcgttgga gatattcatg acgtattttg gatgataacg aggcgcaaaa 60
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VERIFICATION SUMMARY   DATE: 12/07/2001
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